



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/580,277

03/26/2007

Lucia Bonadei

BONA3001/JEK

5986

23364 7590 08/10/2009

BACON & THOMAS, PLLC

625 SLATERS LANE

FOURTH FLOOR

ALEXANDRIA, VA 22314-1176

EXAMINER

BECCIA, CHRISTOPHER J

ART UNIT

PAPER NUMBER

3775

MAIL DATE

DELIVERY MODE

08/10/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|---------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/580,277 | Applicant(s) BONADEI, LUCIA | |
| | Examiner CHRISTOPHER BECCIA | Art Unit 3775 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 1-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 12-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 May 1967 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/18/07</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

The drawings are objected to because they are difficult to discern, in particular the reference numbers are small and difficult to read. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

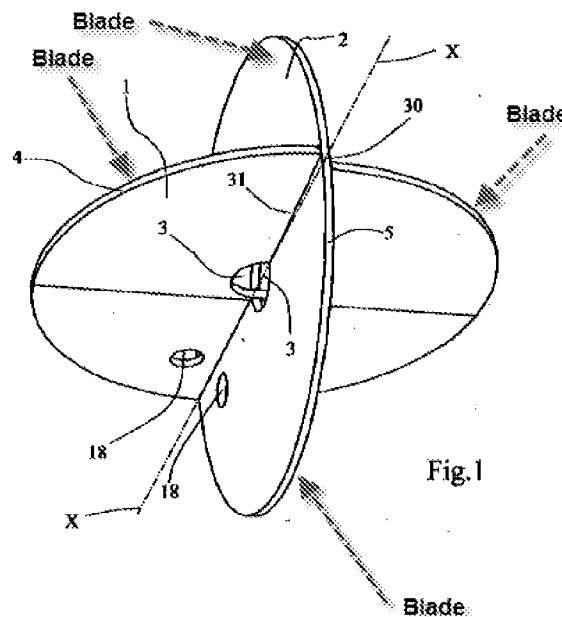
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

Art Unit: 3775

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claim 12** is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Pub. No. 2004/0049199 to *Lechot et al.*

As to **Claim 12**, *Lechot* discloses a surgical reamer (Seen in Fig. 1) comprising at least four flat blades (2 and Fig. 1 below and [0053])



assembled together by means of slots in the blades (plates split down the middle in [0027]), the reamer having a longitudinal axis of symmetry that is coincident with an axis of rotation of the reamer (See Fig. 5), and further wherein at least one of the slots (30) and/or sections of the slot or slots has a different width from that of at least one other slot and/or section of a slot (Slot 30 in disc 1 has different width than slots along middle of plates in [0027]).

Art Unit: 3775

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 13-22** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Pub. No. 2004/0049199 to *Lechot et al.* in view of U.S. Patent No. 5,897,558 to *Frieze et al.*

As to **Claim 13**, *Lechot* discloses a surgical reamer wherein the third blade (1) of the four blades has at least one upper third slot (30) running from the top of the third blade and at least one lower third slot (plates split down the middle described in [0027]) running from the lower edge of the third blade, the width of the upper slot being greater than the width of the lower slot (Fig. 1 and [0027]) and the fourth blade (2) of the four blades has at least one fourth slot running from the top of the blade (plates split down the middle described in [0027]), the fourth slot comprising at least one outer section and one inner section (slot running from top of blade in [0027] and 3 in Fig. 1), the width of the outer section being greater than the width of the inner section (Figs. 4 and 5), the width of the lower third slot of the third blade corresponding to the thickness of the fourth blade [0027-0028], the width of the inner section of the fourth slot of the fourth blade corresponding to the thickness of the third blade [0027-0028], and the width of the upper third slot of the third blade and the outer section of the fourth blade being the same and such that, once fitted together, the first two blades can be inserted into the

Art Unit: 3775

upper third slot of the third blade and into the outer section of the fourth blade, the third and fourth blades being themselves fitted together (Figs. 4 and 5).

As to **Claim 14**, *Lechot* discloses a surgical reamer wherein the first slot of a first one of the blades has at least an outer and an inner section, the outer section being wider than the inner section (outer slot 30 of blade 1 is wider than slot down the middle described in [0027]).

As to **Claim 16**, *Lechot* discloses a surgical reamer comprising at least one rigidifying element (15) adapted to encircle and hold together the four blades (Figs. 4 and 5 and [0042-0043]).

As to **Claim 17**, *Lechot* discloses a surgical reamer wherein the rigidifying element comprises a cylindrical bushing (15 and [0042-0043]).

As to **Claim 18**, *Lechot* discloses a surgical reamer wherein the rigidifying element comprises a flat ring with notches (10) into which the blades are inserted (Fig. 7, and [0041-0043]).

As to **Claim 19**, *Lechot* discloses blades for a reamer comprising at least one slot having sections of different widths (outer slot 30 of blade 1 is wider than slot down the middle described in [0027]).

As to **Claim 20**, *Lechot* discloses blades for a reamer wherein the at least one slot comprises an upper slot running from the top of a cutting part of the blade and a lower slot running from the lower edge of the blade, the width of the upper slot being different from the width of the lower slot (outer slot 30 of blade 1 is wider than slot down the middle described in [0027]).

As to **Claim 21**, *Lechot* discloses blades for a reamer wherein one of the upper or lower slots comprises at least one outer section and one inner section, the width of the outer section being greater than the width of the inner section (outer slot 30 of blade 1 is wider than slot down the middle described in [0027]).

As to **Claim 22**, *Lechot* discloses blades for a reamer comprising at least one slot wherein the longitudinal axis of symmetry is coincident with the axis of rotation of the reamer, a rounded cutting part (4), and a lower part which is narrower than the cutting part (See Fig. 4 and [0026-0028 and 0041-0043]).

Lechot discloses the claimed invention except for wherein the first of the four blades has at least one first slot which runs from the lower edge of the blade, the second of the four blades having at least one second slot running from the top of the blade, each of the first and second slots having, at least in one section, a width corresponding to the thickness of the blade which is fitted into the other slot; wherein a second one of the blades has at least one lower slot running from its lower edge, the lower slot being wider than the second slot.

Frieze discloses surgical reamer (10 in Fig. 2) wherein the first of the four blades (20) has at least one first slot (54 a, b, c) which runs from the lower edge of the blade (See Fig. 4), the second (28) of the four blades having at least one second slot running from the top of the blade (74 a, b, c), each of the first and second slots having, at least in one section, a width corresponding to the thickness of the blade which is fitted into the other slot (Col. 4, Lines 1-31); wherein a second one of the blades has at least one

Art Unit: 3775

lower slot running from its lower edge (54 a, b, c), the lower slot being wider than the second slot (Fig. 4 and Col. 4, Lines 1-31) in order to provide multiple blades including slots on the outer cutting edge thereof which engage respectively with one of three slots located on the interior edge of each of the multiple blades of the second set (Col. 2, Lines 1-24).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the reamer and blades of *Lechot* with the added blades and slot modifications of *Frieze* in order to provide multiple blades including slots on the outer cutting edge thereof which engage respectively with one of three slots located on the interior edge of each of the multiple blades of the second set.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER BECCIA whose telephone number is (571)270-7391. The examiner can normally be reached on M-F 7:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Barrett can be reached on 571-272-4746. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3775

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHRISTOPHER BECCIA/
Examiner, Art Unit 3775

/Thomas C. Barrett/
Supervisory Patent Examiner, Art
Unit 3775